Abstract of the Disclosure

An ultrasonic fluid level sensor for use in a fluid container, preferably a vehicle fuel tank. The fluid level sensor generally includes a single transceiver having measurement and reference sections, an impedance layer and a housing having a reference element and an aperture. The measurement and reference sections are independent ultrasonic transceivers that are disk-shaped and ring-shaped, respectively, and are generally concentric. The reference element is a ring-shaped portion of the housing that is axially spaced from the reference section at a known distance, and the aperture is a disk-shaped opening in the housing that is axially spaced from the measurement section. In operation, the sensor is able to provide signals to an electronic controller that enable the controller to determine a signal velocity calibrated measurement of the fluid level that is compensated for temperature, fluid composition, and other velocity affecting factors.